

WHAT IS CLAIMED IS:

1. A method of accessing a memory having one or more banks, each bank having one or more rows, for processing MPEG video data, said method comprising:

requesting a memory controller to transfer the MPEG video data used for processing; and

determining in the memory controller which of said rows for which of said banks are to be prepared with a row address select (RAS) operation, so as to efficiently transfer the MPEG video data.

2. The method of claim 1, wherein a minimum number of wasted clocks can be realized through the determining step in the memory controller.

3. The method of claim 1, wherein a maximum burst efficiency can be achieved through the determining step in the memory controller.

4. The method of claim 1, further comprising tailoring in the memory controller a sequence of transferring the MPEG video data to improve transfer efficiency.

5. The method of claim 4, wherein the tailoring is based on a size of video images represented by the MPEG video data.

6. The method of claim 4, wherein the tailoring is based on a type of memory organization.

7. The method of claim 4, wherein the tailoring results in a selection of a mode of operation.

8. The method of claim 4, wherein the tailoring results in selection of a starting address for accessing the memory.

9. A system for processing MPEG video data, comprising:  
a memory having one or more banks, each bank having one or more rows;

a memory controller for determining which of said rows for which of said banks are to be prepared with a row address select (RAS) operation, so as to efficiently transfer the MPEG video data; and

a video decoder for requesting the memory controller to transfer the MPEG video data, and for processing the transferred MPEG data.

10. The system of claim 9, wherein a minimum number of wasted clocks can be realized through determining which of said rows for which of said banks are to be prepared with the RAS operation.

11. The system of claim 9, wherein a maximum burst efficiency can be achieved through determining which of said rows for which of said banks are to be prepared with the RAS operation.

12. The system of claim 9, wherein the memory controller tailors a sequence of transferring the MPEG video data to improve transfer efficiency.

13. The system of claim 12, wherein the memory controller tailors the sequence based on a size of video images represented by the MPEG video data.

14. The system of claim 12, wherein the memory controller tailors the sequence based on a type of memory organization.

15. The method of claim 12, wherein the memory controller selects a mode of operation to efficiently transfer the MPEG video data.

16. The method of claim 12, wherein the memory controller selects a starting address for accessing the memory to efficiently transfer the MPEG video data.